REMARKS

This Amendment is filed in response to the Office Action mailed on October 19, 2005. All objections and rejections are respectfully traversed.

Claims 1 to 23 are in the application and currently pending.

At Paragraph 2 of the Office Action claims 1-21 were rejected under 35 U.S.C. 102(b) as being anticipated by Yin U. S. Patent No. 5,926,458 issued July 20, 1999, hereinafter Yin.

The present invention, as set out in representative claim 1, comprises in part:

> 1. (Original) An intermediate network device for use in a computer network having a plurality of entities configured to issue requests to reserve network resources for use by traffic flows, the reservation requests specifying one or more flow parameters, the intermediate network device comprising:
>
> a traffic scheduler having one or more network resources for use in forwarding network traffic received at the device at different rates;
>
> a classification engine configured to identify network messages belonging to respective traffic flows based upon predefined criteria;
>
> a resource reservation engine in communicating relationship with the traffic scheduler and the classification engine, the resource reservation engine including a flow analyzer; and
>
> ***one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein***
>
> ***the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and***
>
> ***in response to the application of the one or more sets of predefined heuristics, the flow analyzer selects a queue and/or a queue servic-***

ing algorithm for assignment to the traffic flow corresponding to the reservation request.

Yin discloses a method for servicing queues in a router. The method reads a packet header, and in response to information read from the header performs scheduling calculations. Yin simply selects the queue with the shortest queue service time.

Examiner states at paragraph 4 of the Office Action that Yin teaches of one or more sets of predefined heuristics that are accessible by the flow analyzer. The examiner states that Col. 5 lines 26-40 and Col. 6 lines 32-57 teach servicing queues based on a queue service order.

Col. 5 lines 20 to 40 state:

> "Step 62 identifies the queue associated with the received data packet. As discussed above, this identification may be performed using information contained in the header of the received data packet. At step 64, the received data packet is stored in the appropriate queue, i.e., the queue identified in step 62.
>
> At step 66, the queues within the communication device are serviced based on a queue service order generated by a packet scheduler. At step 68, the procedure selects the data packet from the head of the queue currently being serviced. At step 70, the selected data packet is transmitted across the output port of the router. Although FIG. 3 illustrates a linear procedure for receiving, servicing, and transmitting data packets, it will be appreciated that two or more of these procedures may be performed simultaneously. For example, a particular communication device may receive data packets at the same time that one or more queues are being serviced. Similarly, one or more data packets may be received by a communication device at the same time one or more data packets are transmitted from the communication device."

Col. 6 lines 32 to 57 state:

> "A scheduling algorithm determines the queue service time for each queue based on the queue's service interval, I(i), and the length of the

data packet at the head of the queue, P(i). Each queue may contain variable-length data packets. Therefore, the length of the data packet P(i) at the head of the queue is used when determining the queue service order. Although the scheduling algorithm is capable of handling variable-length data packets, the algorithm is also capable of handling fixed-length data packets.

A variable T(i) represents the next scheduled service time for queue i. T_{ref} represents a reference time (or index time) used by the scheduling algorithm.

When the scheduling algorithm begins, the value of T_{ref} is initialized to zero (e.g., FIG. 4, step 72). The value of T(i) is initially calculated for each queue using the following equation: T(i)=I(i). The scheduling algorithm then selects the non-empty queue having the smallest T(i) value to be serviced. The data packet at the head of queue i is then transmitted across the device's output port. If all queues are empty, then the algorithm waits until a queue receives a data packet. If two or more queues have the same T(i) value, various procedures may be used to break the "tie". In one embodiment, the queue having the smallest value i is serviced first. Alternatively, the queue having the smallest P(i) value can be serviced first. Those of ordinary skill in the art will appreciate that various other procedures may be utilized to break a "tie" between two or more queues having identical T(i) values."

In reference to the above statements, Yin teaches using the packet header to select the appropriate queue to store the packet (Col. 5, lines 20-25). Additionally, Yin teaches a single rule system for transmitting packets based on the queue service time. The queue service time selects the queue (i) with the smallest I(i), where I(i) identifies the time period between consecutive servicing off the queue. I(i) is equal to 1/F(i), where F(i) is the allocated bandwidth for the queue. If there is a tie of the smallest I(i), then the smallest (i) is used or the smallest P(i), where P(i) describes the length of the data packet and the length of the data packet is taken from the packet header. (Yin, Col. 6, lines 13, 27-28, 36, 54-55).

Applicant respectfully urges that Yin does not disclose Applicant's claimed novel ***one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and in response to the application of the one or more sets of predefined heuristics, the flow analyzer selects a queue and/or a queue servicing algorithm for assignment to the traffic flow corresponding to the reservation request***. In further detail, in Applicant's invention, the flow parameters are specified by the reservation requests to select a queue. The flow parameters characterize the bandwidth and/or forwarding requirements of the anticipated traffic flow. Additionally, Applicant's invention selects the queue based on a combination of the reservation request, the flow parameters, and the set of heuristics. In sharp contrast, Yin determines the appropriate queue based on the smallest queue service time. Furthermore, there is no teaching in Yin of using a combination of the reservation request, flow parameters, and a set of heuristics to select a queue.

Accordingly, Applicant respectfully urges that Yin is legally precluded from anticipating Applicant's claimed novel invention under 35 U.S.C. 102 because of the absence from Yin of Applicant's claimed novel use of ***one or more sets of predefined heuristics that are accessible by the flow analyzer, wherein the flow analyzer applies the one or more sets of predefined heuristics to the one or more flow parameters specified in the reservation requests, and in response to the application of the one or more sets of predefined heuristics, the flow analyzer selects a queue and/or a queue servicing algorithm for assignment to the traffic flow corresponding to the reservation request***.

At Paragraph 3 of the Office Action claims 9 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yin

Applicant respectfully points out that claims 9 and 15 are dependent claims, and these dependent claims are dependent from independent claims believed to be in condition for allowance.

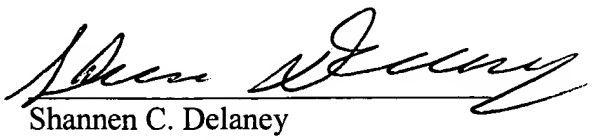
All independent claims are believed to be in condition for allowance.

All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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